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BELFAST CORPORATION

TUBERCULOSIS DEPARTMENT

REPORT

OF THE

MEDICAL COMMISSION

APPOINTED TO INVESTIGATE

THE SPAHLINGER

AND OTHER

METHODS OF TREATMENT

OF

TUBERCULOSIS, ETC.

(March, 1925).

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REPORT

of the Medical Commission appointed to investigate the Spahlinger and other Methods of Treatment of Tuberculosis, etc.

BELFAST, MARCH, 1925.

To the Chairman and Members of the Tuberculosis Committee.

MADAM CHAIRMAN, LADIES AND GENTLEMEN,

In accordance with your instructions, and acting on the terms of reference handed to us for our guidance, we beg to report that we have completed our task, and herewith submit our joint

report.

We left Belfast on Saturday, the 7th March, and returned on Sunday, the 5th April. In order that we might make our report as comprehensive and instructive as possible, we asked for, and obtained, an interview with Sir Walter Fletcher, Secretary of the Medical Research Council, in London, on Monday, 9th March, and submitted to him our provisional itinerary and draft scheme of investigation, concerning which he made several useful suggestions. He considered that our mission was a wise one, and believed that it would serve a useful purpose in comparing ideas and in bringing our information up to date; and, further, it would enable us to realize what was being done on the Continent in medical research and in the practical application of modern methods to the diagnosis and treatment of disease. His opinion of the Spahlinger treatment was that its results are worthy of a full investigation, and of a more extended trial than it has yet been possible to give to it.

Our visit to Sir Walter Fletcher synchronised with the first reports of tests in some of the great London Hospitals of Professor Mællgaard's method of treatment, of which we will speak in greater detail later on. Sir Walter Fletcher also informed us that the Tuberculosis Committee of the Medical Research Council will shortly report on the result of an intradermic method of testing cattle for tuberculosis, which is said to be much more reliable than the old sub-cutaneous method. (This Report has since been published—Medical Research Council Special Report, Series No. 94.)

We also had an interview with Sir Almroth Wright at St. Mary's Hospital, and saw some of his more recent methods of bacteriological and serological investigation.

While in London we took the opportunity of visiting Dr. Piney of the Charing Cross Hospital, who kindly gave us an account of his work and observations on blood cells in pernicious anæmia and allied blood conditions.

On Tuesday, 10th March, we had an interview with Captain Douglas at the laboratory of the National Institute for Clinical Research, Hampstead. We were fortunate in being able to obtain his opinion concerning Professor Mællgaard's new "Gold" treatment of tuberculosis. He had just written a review on the subject, after a careful study of the method, and was, therefore, in a position to give us valuable information concerning it. He considers that it is based on sound principles, but that the technique will require to be improved, and that, on account of its danger, great skill and experience will be necessary in its use. He also gave us some valuable information on other methods of treatment, and was good enough to arrange an introduction for us to some distinguished bacteriologists in Paris.

It is well known that several young Ulster medical men have passed through St. Mary's Hospital, with which Captain Douglas was at one time associated, and it was with pardonable pride we noted his suggestion that he would gladly give a place as assistant in his laboratory to any young Ulster medical man who wished to study bacteriological methods or engage in research work. We have passed on the offer, and believe it will be gladly accepted.

On Tuesday evening we crossed to Paris via Calais.

PARIS.

WEDNESDAY, 11TH MARCH, 1925.

On Wednesday morning we proceeded to the Pasteur Institute, where we met M. Calmette, the Associate Director, who received us very sympathetically, and explained to us his method of immunising children born of tuberculous mothers, or born in tuberculous surroundings, against tuberculosis, shortly after birth. He was kind enough to give us a culture of his special strain of tubercle bacilli, and also some samples of his immunising agent. His method of immunisation consists in administering a dose of the freshly-prepared vaccine by mouth to the newly-born child on the third day after birth, a second dose on the 5th day, and a third on the 7th. The vaccine produces no apparent symptoms, and is absolutely harmless, being composed of extremely attenuated tubercle bacilli, suspended in water.

M. Calmette was kind enough to place the services of his assistant, Dr. Limousin, at our disposal, to explain to us the work of the Institute, which is privately endowed as a memorial to the great Pasteur to carry on research in all branches of medicine. It also includes in its grounds an isolation hospital for all forms of

infectious disease, including the rarer tropical varieties. This hospital is built on a most ingenious plan for isolating patients, while at the same time enabling their friends to see them through glass screens.

We also saw at the Pasteur Institute several of the workers, including Dr. Vaudremer, who showed us some of their very inter-

esting laboratory methods, which we noted for future use.

In the afternoon we paid a visit to the farm section of the Pasteur Institute at Garches, where M. Ramon is working on a new method (which is a great improvement on the present method) of immunisation against diphtheria. His method will also probably be applicable to other diseases, such as botulism and tetanus.

THURSDAY, 12TH MARCH, 1925.

On Thursday we visited the Laennac Hospital in Paris, and saw Dr. Rist, a distinguished specialist in tuberculosis. He was good enough to show us over his wards. He also explained to us some of his methods for the treatment of tuberculosis (including artificial pneumothorax and thoracoplasty). His wards are well equipped, but are ventilated, as in the Royal Victoria Hospital, on the plenum system, and, therefore, without the open windows and fresh air so common a feature in our own sanatoria.

In the afternoon we went to the clinical section of the Radium Institute, which was opened last year. This is under the direction of Dr. Regaud. The treatment for malignant diseases, etc., consists in the application of radium emanations from capillary tubes, encased in platinum needles, either inserted into the tumour or applied to the surface, held in position by wax moulds. The results achieved by this method have been very successful, but this is largely contributed to by the fact that not only is radium used, but that before treatment is undertaken a very careful histological examination is made of a section of the tumour to determine the suitability of the case for radium treatment.

GENEVA.

Leaving Paris by the night train on Thursday, we arrived in Geneva on Friday morning, where we remained for six days.

SPAHLINGER'S REMEDY—MEDICAL TESTIMONY.

Through the kindness of Mr. Lovell, Mr. Spahlinger's friend and helper, we were able to get to work at once, and on the morning of our arrival we had an interview with Dr. Trechsel, a Geneva physician, who has treated about 200 cases of tuberculosis by Spahlinger's method. His experience, he stated, had led him to form a high opinion of this method of treatment, and although

90 per cent. of the patients were in an advanced stage of tuberculosis when treatment was commenced, most of them had done exceedingly well.

PATIENTS.

Besides inspecting the records of numerous patients, we made a physical examination of 28 patients in Geneva, and, later on, four patients in London, who had been treated by the Spahlinger serum or vaccine. Some of these patients were treated as far back as 1912, and have remained well ever since. Others were treated more recently, with results that warrant us in saying that they are apparently cured, while some are still under treatment. It may be mentioned that these patients come from all parts of the world, including Australia, New Zealand, and America.

HENRY SPAHLINGER.

We had arranged accommodation at the Hotel Metropole, where the Spahlinger family resides, and therefore had many opportunities for discussion on tuberculosis with Mr. Spahlinger. These interviews led us to the conclusion that, whatever the ultimate value of his methods might prove to be, Spahlinger himself was a genuine enthusiast, apparently not actuated by personal or selfish motives, but truly desirous of serving humanity. explained to us the theoretical principles on which his methods were based, but did not disclose all the essential details of his serological work. He explained to us that the reason why he did not inform us of every detail of his process was that he was anxious that clinical proof of the value of his methods should first be conclusively demonstrated by more extensive clinical trials, because he felt that if other workers, for any reason, were unable to reproduce the results which he had obtained, it would react disastrously on the future general application of his treatment. When these demonstrations have proved beyond doubt the efficacy of his system of treatment, he states that he is prepared to make known his methods and technique, so that the treatment may be available in every country.

SPAHLINGER'S LABORATORY AND FARM.

We spent a good deal of time at the laboratory and farm at Carouge, on the outskirts of Geneva, which had previously been the residence of the Spahlinger family. The house has now been converted into an up-to-date laboratory, fitted and equpped with many mechanical and electrical devices, necessary for the carrying on of the work. Many of these devices are the product of Spahlinger's own inventive brain. The farm buildings have also been converted into duplicate laboratories so as to minimise the risk of fire. The stables are occupied by a stud of 14 horses of the Irish

hunter breed, which provide the anti-toxic serum used in the treatment of tuberculosis. Other outhouses and additional new buildings have been erected to house a stock of monkeys, rabbits, guinea pigs, mice, etc., used for experimental purposes.

THE PRINCIPLE OF SPAHLINGER'S METHOD.

The principle on which Spahlinger has proceeded in the elaboration of his serum is that the tubercle bacillus, which does not ordinarily vield a toxin, when grown by laboratory methods may be made to yield one when grown in conditions which prove irritative to it, as, for instance, if grown alternately for long periods at varying temperatures. The significance of this is that if no toxin is produced, no anti-toxin can be produced in the serum of inoculated animals; but if a toxin is produced, it can be used to stimulate the production of anti-toxins in the blood, say, of horses, which Spahlinger prefers for the elaboration of his serum. As the toxin and the anti-toxin require long periods of time to elaborate, it will be seen that the manufacture of the serum is not an easy or a simple process. Further, Spahlinger believes that the tubercle bacillus has many different toxins, which produce as many anti-toxins. As a matter of fact, partly owing to the time required, and partly owing to the expense of producing it, he has lately only been able to provide comparatively small quantities of incomplete serum.

In addition to serum for treatment, Spahlinger also considers it necessary for the complete treatment of a patient to administer a vaccine made from tubercle bacilli fractionated by a method devised by himself. Of the patients referred to in another part of this report, 16 were treated by anti-toxic sera and 18 by vaccine.

CAN THE REMEDIES BE OBTAINED?

Naturally, the first question that will arise after reading this portion of the report is whether the serum and vaccine can be obtained for the treatment of tubercular patients in Northern Ireland. Unfortunately, they are not yet available in sufficient quantities, owing to the fact that Spahlinger is working at present under great financial embarrassment, from which it is hoped he may shortly be relieved. Nearly all the serum he can produce is being used to treat necessitous patients, or the friends and nominees of those to whom he is under obligations for donations which they have made to enable him to carry on his work, and, in any case, to produce the serum and vaccine in quantities sufficient for use on a large scale would require much more extensive equipment, more animals, a larger staff, and greater financial resources than Spahlinger has at present at his disposal. To have a demonstration of the clinical value of the treatment made on patients in Northern Ireland is naturally our desire, but as Spahlinger, hitherto, has refused all overtures to enter into commercial agreements, the place of the demonstration will be decided entirely by Spahlinger in the

exercise of his own free judgment.

As evidence of the interest already created by his treatment in these islands we may mention that, in addition to large numbers of private inquirers, deputations from Southern Ireland, from the British Ministry of Health, and the British Red Cross Society have already visited Geneva and reported favourably on the treatment. While we were in Geneva we were informed that the Turkish and Egyptian Governments were sending a Commission to Geneva; and since our return we have heard that a deputation of the medical members of the British House of Commons have decided to visit Mr. Spahlinger and inspect his laboratories and farm at Geneva.

The results that Spahlinger has already obtained in the treatment of pulmonary and other forms of tuberculosis by the use of his serum and vaccine has convinced us that his methods are so remarkable that they warrant the fullest trial and investigation, and we hope that means may shortly be found to relieve him of his financial embarrassment and thus enable him to continue

and extend his work.

IMMUNISATION OF CATTLE AGAINST TUBERCULOSIS.

Side by side with the production of serum for the cure of human tuberculosis, Spahlinger has carried on for many years experiments in the immunisation of cattle against the bovine form of tuberculosis, and he empowered us to state his willingness to provide sufficient vaccine, when ready, for the inoculation of a number of calves in Northern Ireland, in order to demonstrate the value of the method. Considering the number of valuable cattle which contract tuberculosis, or are prevented from landing in other countries by reason of the fact that they react to tuberculin we are of opinion that facilities should be granted for making this test, which, if it proves successful, would be in the nature of an in urance to the farmer against the loss of valuable cattle.

LEAGUE OF NATIONS.

During our stay in Geneva we availed ourselves of the opportunity of becoming acquainted with the nature of the work being done by the Health Section of the League of Nations, and more especially with its work concerning tuberculosis, vital statistics, scientific research, and serological tests. We were surprised to learn how extensive this work was, and the provision which has been made for the study of reliable efforts to obtain information regarding the incidence of disease in different countries; the distribution of various forms of disease, and the reason for its recurrence in epi-

demics. In addition, arrangements have been made for the review and comparison of the public health in different countries of the world; for a system of rapid interchange of information in regard to particular diseases where immediate action appears to be necessary, and for the publication and distribution of special reports and a periodical bulletin. One result of our visit was that, through the kindness of Dr. Stouman, Head of the Department of Medical Statistics, the Institutions with which we are associated have been placed on the mailing list, and in the future we will receive all the literature which the Health Section of the League publishes from time to time.

We were also greatly interested in the arrangements which the League has made for the standardisation of various methods of immunisation against different diseases, and for the distribution of equipment for hospitals, food, clothing, soap, motor transport, and similar necessaries. The value of such an organisation is at once apparent when it is realised that by the system in operation if, say plague, were reported to be advancing from Asia towards Europe, effective steps could at once be taken to limit such an epidemic and to stay its progress. Not only so, but in endemic diseases, such as tuberculosis, cancer, etc., the opportunity afforded for the collaboration of reputable medical scientists selected by the Governments of various countries must, in itself, tend to the more effective prevention and treatment of all disease, and to a realisation that, even on the lowest ground of prudence, diseases which affect one community should engage the earnest attention of every other community.

MONTANA.

We left Geneva on Thursday afternoon, and visited Dr. Bernard Hudson and Drs. T. and J. Stephani at Montana. Dr. Bernard Hudson had had some experience of Spahlinger's serum, and was highly impressed with the results which he had obtained, but the Doctors Stephani had had perhaps more experience of it than any other medical men whom we met. In their opinion results had been achieved which could not be equalled by any other method which they knew of.

GERMANY.

We stayed the night at Montana Sanatorium, and next day set out for Frankfort, via Lausanne. Here, through the kindness of Mr. Spahlinger, arrangements had been made with Professor Kolle to receive us at the Institute for Experimental Pathology. Professor Kolle received us with great courtesy, but with some slight coolness—presumably because we were amongst the first British visitors since the war. Notwithstanding this, after an expression of opinion on his part as to the iniquity of the Treaty

of Versailles, he was kind enough to place Professor Schlossberger, his principal assistant, at our disposal to enable us to see over the Institute, and to introduce us to the heads of the various departments. The various heads of departments explained to us the work in which they were engaged, which was intensely interesting. Professor Schlossberger himself has a world-wide reputation as a chemist, and has done a great deal of work in the use of chemicals in the treatment of disease and in the standardisation of methods for the diagnosis of syphilis, etc.

CANCER.

Professor Casparri, in charge of the Department for Research in Cancer, and his assistant (Dr. Swartz) showed us some of his experimental work in the artificial production of cancer and in the immunisation of healthy animals against its artificial production. This work may have a very important bearing in the future on the prevention and treatment of malignant disease in human beings.

On Professor Kolle's suggestion, we went to see Professor Kuster at the Gans Chemical Manufactory at Oberursal, a few miles distant from Frankfort. In collaboration with Dr. Hirsch, Professor Kuster has elaborated a method (based on the earlier methods of Abderhalden) for the diagnosis of disease by examination of the blood by the aid of an instrument called an interferometer. The method is exceedingly complicated, and one would require some practice to become expert in its use; but if its claims can be substantiated it would be a particularly delicate method of diagnosis of almost every disease, including tuberculosis in the various organs of the body, cancer, and diseases caused by war disturbances, and by deficiency of the endocrine glands, etc.

Through the kindness of Professor Kuster, we were provided with an unpublished copy of Professor Hirsch's paper, which explains in detail the technique of this method of diagnosis. The apparatus is manufactured by Zeiss, of Jena, and costs about £50.

It was with some satisfaction we learned that in days when British chemical products meet with so much Continental competition, British Insulin, though dearer than the German variety, is preferred by many German doctors to insulin produced by their own manufacturers.

HAMBURG.

On Tuesday evening we left Frankfort, and travelling by the night train we reached Hamburg on Wednesday, the 25th March. In the forenoon we called on Professor Much, who explained his method of diagnosis of tuberculosis by "Partigens," and, through the kindness of one of the visiting physicians at the Eppendorf Hospital, we had a practical demonstration as to how the method is carried out in practice. This method interested us not only

because of its value in the diagnosis of tuberculosis, but also because of its value as an indication of the progress of the patient during treatment.

While we were visiting the hospital we received a warm invitation (which we readily accepted) from Professor Brauer, the Superintendent, to see him at his own house. He explained to us some of the surgical methods in vogue in Germany for the treatment of tuberculosis—especially the operation known as thoracoplasty and expressed his willingness to grant facilities to any young surgeon who would care to come to Hamburg for six months to learn his methods. We might mention that this suggestion came from Professor Brauer after he heard that we were paying a visit to the Continent with the authority of the Government of Northern Ireland. Indeed, the progress of the Commission all through was greatly facilitated by reason of the fact that we came as official representatives, and not as private individuals. And, although the Germans at the beginning were somewhat cool in their reception of us, they readily granted us every facility, and made our task not only easy but pleasant and instructive. We have passed on Professor Brauer's offer to some of the junior surgeons, and it is possible that advantage will shortly be taken of his kindly suggestion.

COPENHAGEN.

We left Hamburg on the morning of Thursday, the 26th March. and arrived in Copenhagen at 7-30 the same evening. The next day we called on Professor Mællgaard, who, unfortunately, was confined to bed with a cold. We had a long talk, however, with his assistant, Dr. Wulff, who described to us the sanocrysin method of treatment in tuberculosis. We found that the technique in use had been modified considerably since Professor Mœllgaard's recent book was published. At first the sanocrysin and serum were administered by a routine method, the dose being repeated at regular intervals. It was soon discovered, however, that this method produced very unsatisfactory and undesirable results, and a more controlled and judicious method, without serum, has now replaced the original routine method. Dr. Wulff kindly made arrangements for us to see the clinical application of the methods and results of treatment in two of the principal hospitals in Copenhagen—the Reis and the Bispebjerg Hospitals.

On Saturday morning we visited the Rejs (Blegdamshospital), where we saw ten cases which were being, or had been, treated by the sanocrysin method. In the absence of the senior physician, Professor Faber, we were received by his assistant, Dr. Gram, who speaks English fluently. Every assistance was given to enable us to judge impartially of this new method of treatment and of its

value, of which we will speak more in detail later on.

FINSEN INSTITUTE.

In order to ascertain something of the results of sanocrysin in non-pulmonary tuberculosis we went to see Dr. Chiewitz, senior surgeon at the Finsen Light Institute. Unfortunately he could only confirm what we had already heard—that sanocrysin did not seem to be of much value in the non-pulmonary forms of tuberculosis, but against pulmonary tuberculosis he thinks it a better weapon than any hitherto available. The results, however, have still to be judged by the test of time.

LIGHT TREATMENT.

We had the privilege of seeing over the Institute, which was originally erected to utilise Finsen's method of treatment of lupus by the direct application of the light of the electric arc lamp. In addition to the local application of the light of the electric lamp to lupus, light baths—known as artificial sunlight—are now largely used for general irradiation of the skin of the whole body as a means of stimulating the healing of glandular, osseous, and other non-pulmonary forms of tuberculosis. Of the results of this method of treatment we were able to judge by seeing several of the patients just terminating their treatment. They were all as brown as the proverbial nut, and the tuberculosis for which they were being treated had shown remarkable improvement during the course of this "artificial sun" therapy—a great advantage in a climate as fickle and destitute of real sunlight as our own.

Dr. Chiewitz was good enough to provide us with details of the lamps in use for general irradiation of the skin, which may afterwards be of service if this line of treatment is developed at

home.

We also saw the Radium Department for the treatment of cancer, which is run in connection with the Light Institute. Patients from all parts of the world, as well as inhabitants of Denmark, are treated at the Institute at the very reasonable cost of five to six

kroner (about 4/- to 5/-) per day.

On Monday we paid a visit to the Bispebjerg Hospital, where, in the absence of Dr. Secker, we were received by his assistant, Dr. Folkmar, who showed us his tubercular patients being treated by the sanocrysin method, and explained to us the technique now being applied at this hospital. This seemed to us to be based on such sound principles, and to have secured such good results, that we think it might well be followed by those desirous of using the treatment as the best method of using sanocrysin.

TECHNIQUE OF THE "GOLD" TREATMENT.

As Dr. Folkmar aptly remarked, the treatment is no "miracle" cure. It is surrounded by so many difficulties, and its application

is restricted by so many conditions, that it can only be regarded as another weapon in the armamentarium of the physician in dealing with certain types of tuberculosis.

EXCLUSIONS.

Generally speaking, the treatment has not been effective in its application to non-pulmonary forms of tuberculosis; it may even be said to be dangerous in some forms of abdominal tuberculosis. It is also of little service in tuberculosis which has undergone much fibrosis—in other words, in cases that seem to be progressing towards quiescence or cure. Neither have cases running a definitely febrile temperature hitherto proved suitable for treatment—rather the contrary, as the temperature has risen, and the treatment has had to be discontinued in consequence. Further, the treatment can only be carried out in a hospital or sanatorium under the strictest observation, both before and during its administration.

Coming to the practical aspect of the matter, and presuming that it is desired to put the treatment into operation, patients suffering from the exudative type of tuberculosis, or from the military or early forms of the disease, and without much temperature, must be selected. The patient is placed in bed, and preliminary observations made as to temperature, stomachic and urinary conditions (albuminuria being regarded as a contra-indication in this form of treatment). If, after three days, the temperature is normal, or only slight, if there is no albuminuria and no disturbing stomach conditions, a preliminary dose of a quarter to half a gram of sanocrysin (according to the weight and condition of the patient) is given intravenously in 20 c.c's of water. Originally the first dose of sanocrysin was preceded by a dose of specially prepared anti-toxic serum, but this has now been discontinued on account of the many undesirable effects of the serum inoculation. After another three days, if there is no reaction, a second dose of a half to one gram is given intravenously, as before. After another week (still noting carefully the temperature, pulse, stomach and urine reactions) a third dose of one gram of sanocrysin is administered as before. however, there is any sign of rise of temperature, or the slightest trace of albuminuria, the dose must be postponed until the temperature and urine are normal, and the general reactions have disappeared. A fourth, fifth and sixth dose is given at intervals of one week or longer, subject to the foregoing reservations, with the patient still confined to bed—when the treatment may be regarded as completed.

During the course of the inoculations the patient often complains of stomachic disturbances, such as loss of appetite and a general condition of malaise (graphically described by some patients as that of "feeling rotten"). In all cases there is an accompanying loss of weight, while treatment is being carried out, but this loss is rapidly regained when the treatment is complete, and is followed

in many cases by ravenous hunger.

Serum is now only used in the presence of profound shock, which is usually attended by albuminuria and fall of temperature, but, as we have already stated, treatment should be carried through, as far as possible, without reaction, and no repetition of the dose should be attempted until all reactions have passed away. X-ray films greatly facilitate the physician in carrying through the treatment.

PROFESSOR MŒLLGAARD.

In the afternoon we had an interview with Professor Mællgaard, who very kindly solved some of our difficulties, and explained the principles of his treatment. We were particularly struck by the modest claims which he made for it, admitting that its permanent value must be submitted to the test of time and observation.

He also informed us of some of his laboratory tests with sanocrysin, which seemed to us of much interest. For instance, he mentioned the fact that a solution of 1 in 1,000 of sanocrysin, if added to an emulsion of young growing tubercle bacilli, and incubated at 40° C., will produce a toxic substance which seems to be destroyed if the emulsion is heated above 40° C.

SERUM INSTITUTE.

Later in the afternoon we called on Dr. Madson, the Director of the Serum Institute at Copenhagen, who was also kind enough to show us his laboratories and some of his methods, which we found most interesting. He has worked in collaboration with Professor Mællgaard in producing the serum originally used in conjunction with sanocrysin.

LONDON.

We left Copenhagen on Tuesday morning, the 31st March, arriving in London on Wednesday night, the 1st April. On the next day we again had an interview with Sir Walter Fletcher, Secretary of the Medical Research Council, who have been entrusted with the distribution of sanocrysin in Great Britain for Professor Mællgaard, and he has since forwarded us a supply of the sanocrysin in order to enable us to undertake treatment by this method.

We have since made arrangements for the treatment of ten selected cases at the Municipal Sanatorium, Whiteabbey, and a number of cases also at the Forster Green Hospital, Fortbreda, under our supervision, and with the assistance of Dr. John Rankin, Dr. Percy Walker, Dr. Clarke, Dr. Turkington, and Dr. J. Smyth.

In the afternoon we met some physicians who either were interested in, or had had experience of, the treatment of tuber-culosis by Spahlinger's serum, including Sir Bruce Bruce Porter, Dr. Leonard Williams, Dr. Watts, M.P., Dr. Davies, M.P., and

Dr. Shiels, M.P., all of whom were highly impressed with the results of Spahlinger's treatment, and were most anxious to secure

a supply for British patients.

We afterwards examined four patients who had been treated by the Spahlinger method in 1913. Three of them were apparently cured; the fourth, unfortunately, had contracted a cold, but his condition was in marked contrast to his original record, and a subsequent examination of his sputum failed to reveal tubercle bacilli.

SUMMARY AND CONCLUSIONS.

SPAHLINGER TREATMENT Although our terms of reference included various forms of investigation, naturally the greatest interest in the report of the Commission will centre round the Spahlinger treatment for tuberculosis. In our opinion three things stand out prominently in regard to Spahlinger and his treatment:—

- (1) The evident honesty of the man and his desire to serve humanity.
- (2) The clinical results obtained by his treatment, as shown by examination of the clinical records, and by a comparison of their records with the present condition of the 32 patients actually examined by us in Geneva and in London, and
- (3) The testimony of reputable medical men both in London and Geneva.

For reasons already referred to in the body of this report, Spahlinger has not considered it wise to reveal the complete technique and details of the production of his serum and vaccine. We are not, therefore, in a position to offer a considered opinion on the scientific soundness of his methods. We have made representations to him that he should make known certain details of his serological technique, and this we hope he will shortly be in a position to do. Notwithstanding this, we feel that the results of his treatment are such that his methods deserve the fullest investigation and a more extended trial than they have as yet obtained.

Sanocrysin. We have already dealt so fully with this method of treatment in the body of the report that we need not say more on this subject, save, again, to emphasise the necessity for the most careful selection of cases before treatment, and for the greatest caution in the application of the remedy. The results of our clinical trials in Belfast will be published in due course.

MEDICAL INSTITUTES.

In the medical centres which we visited in France, Germany and Denmark—and we understand the same to be true generally—we found that there was a recognised Medical Institute devoted to

research and the investigation of disease and methods of treatment. Such local Institutes form bureaux of information which centralise and sum up all that is known about any subject in which the Institutes are at work or in which they may be interested. This is in marked contrast to the condition of affairs in Ireland, where, although there are well-staffed Universities working on modern lines, and well-equipped hospitals, yet there is no Institute devoted to research in medicine and the application of the results of such research, nor for the investigation of animal diseases communicable to man or affecting his welfare. Considering the rapid advances being made in the study of methods which make for the prevention and promote the cure of disease by biological methods, such an Institute would be of tremendous service to the community. addition to research, it might be made to include the function of a laboratory carrying out diagnostic tests for the whole Northern area, and the elaboration of such methods of treatment as we have referred to as being carried on at Garches, Paris, under professor Ramon.

VALUE OF MEDICAL COMMISSIONS.

The experience gained through this Commission gives us confidence in saying that such Commissions, if appointed periodically, would be of great value from the point of view of mutual interchange of information and experience and for stimulating scientific ideas amongst members of the medical profession—a result which could not fail to have a beneficial effect in the prevention and cure of disease generally.

In conclusion, we desire to thank the Tuberculosis Committee for the opportunity they have afforded us of seeing and learning much that will be of benefit to the community and of service to

each of us in the work in which we are engaged.

We wish also to extend our grateful acknowledgments to the Government and Parliament of Northern Ireland who gave the financial sanction required for the expenses of the Commission.

We have the honour to remain,

Ladies and Gentlemen,

Yours obediently,

ANDREW TRIMBLE,

Chief Tuberculosis Officer (Belfast).

THOMAS HOUSTON.

Physician in Charge of the Clinical Laboratories, Royal Victoria Hospital, Belfast.

NORMAN C. GRAHAM,

City Bacteriologist (Belfast).

